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(Reaffirmed 1989)

Indian Standard

GRAPHICAL SYMBOLS FOR USE ON DETAILED MAPS, PLANS AND GEOLOGICAL CROSS SECTIONS

PART I GENERAL RULES OF REPRESENTATION

1. Scope — Lays down the general rules for the representation of rocks and minerals on detailed maps, plans and geological cross sections.

2. Rules of Representation

- 2.1 In order to represent a type of rock on a map or on a plan, the corresponding surface shall be covered by the ornaments representing the rock in question. The surfaces occupied by rocks of different types shall be separated by a continuous thin line if, in nature, there is a clear demarcation between the different rock types.
- 2.2 The ornaments used for the representation of rocks and minerals shall be in black and white so as to facilitate their reproduction on coloured backgrounds which shall be used to designate either age or other characteristics. The symbols provided shall keep their significance independently of the colours of the background.
- 2.3 Since there are great variety of rocks and a considerable degree of differentiation is necessary in certain fields of application, it has been impossible to have an individual ornaments for each of the rocks that are found in nature. For this reason the relevant standards have been kept limited to the establishment of ornaments for the most important and the most frequently occurring rocks, and are based on the following principles:
 - a) In order to characterise the properties of rocks, elementary symbols are chosen which shall:
 - 1) be as simple as possible and therefore easily traceable;
 - 2) express the nature of the rock in question; and
 - 3) be of such a dimension that several elementary symbols placed next to each other have enough room on the plan to be covered by the same ornament.
 - b) Basic rocks shall be represented by the juxtaposition of several identical elementary symbols; the mixed rocks and the intermediary types by the juxtaposition of the different elementary symbols which characterise the constituents.
 - c) In order to characterise the loose form of a rock, ornaments and symbols shall be arranged with no determined order; a systematic staggered arrangement shall represent the consolidated form of a rock. Other arrangements may be used to represent other details.
 - d) The individual elements or the rows of ornaments shall be arranged either parallel to the stratification joints or parallel to the margin of the map. Each plan, therefore shall indicate the procedure adopted.
 - e) The colour of the rocks shall only be indicated in exceptional cases, and even then not by means of colours (which are reserved for stratigraphy), but rather by a slight modification of the elementary symbols, by letters or by special symbols. If colour is used, this method of representation shall be explained on the map in a key.
- 2.4 A new symbol shall be chosen for any characteristic not represented by a symbol in these standards. In no case the individual symbol as given in these standards shall be used for any other meanings.

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EXPLANATORY NOTE

In many spheres of technology, science and economics, data on the geological formations and structure of the earth's crust are indispensable. Often, this information is given in the form of maps and plans annotated by conventional symbols.

Until the present time, different symbols have been used for various fields of application within the country, resulting in entirely different representation of the same fact or geological data. Under these circumstances, it has become necessary to eliminate these differences as far as possible and to reach some agreement on the use of a standard set of symbols and ornaments, so that maps and plans can be understood in the way throughout the country and in all languages.

This standard is being issued in the following parts:

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Part I	General rules of representation
Part II	Representation of sedimentary rocks
Part III	Representation of magnetic rocks
Part IV	Representation of metamorphic rocks
Part V	Representation of minerals

This standard is in conformity with ISO 710/1-1974 'Graphical symbols for use on detailed maps, plans and geological cross sections, Part I General rules of representation' issued by International Organization for Standardization.